

Serial No.: 10/517,747

Agent Docket No.: AP041-04

AMENDMENTS TO THE CLAIMS:

(1) Please amend claims 1, 6 and 7, and add claims 8-12 as follows:

Claim 1 (Currently amended): A caisson breakwater characterized in that at least one caisson (1) of said caisson breakwater comprises a vertical duct (2), a room (3), and at least one air duct (4) connecting said room (3) with the atmosphere; where: said vertical duct (2) is on the wave beaten side of said caisson (1); said vertical duct (2) extends substantially along the whole caisson (1); said vertical duct (2) is connected with the sea through an upper opening (6) beneath the sea level; said vertical duct (2) is connected with the room (3) through a lower opening (7) or through a horizontal or sloping duct (19); said room (3) extends substantially along the whole caisson (1); said room (3) is in part beneath the sea level and in part above the sea level; said air duct, or air ducts, (4) comprises at least one turbine (5); said caisson (1) further comprising a superstructure (10) positionable above said caisson (1), and a roof (8) located above said room (3); and wherein said caisson (1) having at least one cell adapted to be filled with material.

Claim 2 (Original): The caisson breakwater according to claim 1, where the vertical duct (2) is subdivided into sections (2', 2'', 2''') and the room (3) is subdivided into cells (3', 3'', 3''') by vertical walls (14', 14''), and where each of said cells (3', 3'', 3''') is connected with the atmosphere through at least one air duct (4', 4'', 4''') with a turbine (5', 5'', 5'''), and where the air ducts (4', 4'', 4''') are provided with valves (9', 9'', 9''') or other closing devices.

Claim 3 (Original): The caisson breakwater according to claim 1, where the vertical duct (2) is subdivided into sections (2', 2'', 2''', 2IV, 2V, 2VI) and the room (3) is subdivided into cells (3', 3'', 3''', 3IV, 3V, 3VI) by vertical walls (14', 14'', 14''', 14IV, 14V), where the air can circulate through the cells (3', 3'', 3''', 3IV, 3V, 3VI) or through groups or said cells, for example through openings (15', 15'', 15IV, 15V) in the walls (14', 14'', 14''', 14IV, 14V), and the air in the cells (3', 3'', 3''', 3IV, 3V, 3VI) is connected with the atmosphere through at least one air-duct

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(4', 4") being provided with turbines (5', 5") and valves (9', 9") or other closing devices.

Claim 4 (Original): The caisson breakwater according to claim 1, where the vertical duct (2) is subdivided into sections (2', 2", 2"', 2IV, 2V, 2VI) and the room (3) is subdivided into cells (3', 3", 3"', 3IV, 3V, 3VI) by vertical walls (14', 14", 14"', 14IV, 14V), with the cells (3', 3", 3"', 3IV, 3V, 3VI) being connected with the atmosphere through tubes (16', 16", 16"', 16IV, 16V, 16VI) which join (directly or with some interposed distribution frames) at least one air-duct (4', 4") being provided with turbines (5', 5"), and where the tubes (16', 16", 16"', 16IV, 16V, 16VI) are provided with valves (9', 9", 9"', 9IV, 9V, 9VI) or other closing devices.

Claim 5 (Original): The caisson breakwater according to claim 2 wherein the room (3) is provided with a vertical septum (18), and where said septum (18) extends for all the width of the room (3) and extends in height from the roof (8) downwards without reaching the base of said room (3).

Claim 6 (Currently amended): ~~A factory of green power, characterized in that said factory consists of the~~ The caisson breakwater according to claims 1 or 2 or 3 or 4 or 5, and further comprising a number of wind mills in the protected water-sheet behind said caisson breakwater.

Claim 7 (Currently amended). The caisson breakwater according to ~~claims 1 or 2 or 3 or 4 or 5 without turbines, for converting sea wave motion into a form more suited for conversion~~ claim 1, wherein said turbine and said air duct are located above said superstructure and adjacent at a right angle to said room.

Claim 8 (New): A caisson breakwater characterized in that at least one caisson (1) of said caisson breakwater comprises a vertical duct (2), a room (3), and at least one air duct (4) connecting said room (3) with the atmosphere; where: said vertical duct (2) is on the wave beaten side of said caisson (1); said vertical duct (2) extends substantially along the whole caisson (1); said vertical duct (2) is connected with the sea through an upper opening (6) beneath the sea level; said vertical duct (2) is connected with the room (3) through a duct (19);

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said room (3) extends substantially along the whole caisson (1); said room (3) is in part beneath the sea level and in part above the sea level; said caisson (1) further comprising a superstructure (10) positionable above said caisson (1), and a roof (8) located above said room (3); and wherein said caisson (1) having at least one cell adapted to be filled with material.

Claim 9 (New): The caisson breakwater as set forth in claim 8 where said vertical duct (2) is subdivided into sections (2', 2'', 2''') and said room (3) is subdivided into cells (3', 3'', 3''') by vertical walls (14', 14''), where each of said cells (3', 3'', 3''') is connected with the atmosphere through said air ducts each having a turbine therein, where said air ducts (4', 4'', 4''') are provided with valves (9', 9'', 9'''), and wherein said turbines and said air ducts are located above said superstructure and adjacent at a right angle to said room.

Claim 10 (New): The caisson breakwater according to claim 8, where said vertical duct (2) is subdivided into sections (2', 2'', 2''', 2IV, 2V, 2VI) and said room (3) is subdivided into cells (3', 3'', 3''', 3IV, 3V, 3VI) by vertical walls (14', 14'', 14''', 14IV, 14V), where the air can circulate through said cells (3', 3'', 3''', 3IV, 3V, 3VI) through openings (15', 15'', 15IV, 15V) defined in said vertical walls (14', 14'', 14''', 14IV, 14V), the air in said cells (3', 3'', 3''', 3IV, 3V, 3VI) is connected with the atmosphere through said air ducts each having a turbine and a valve, and wherein said turbines and said air ducts are located above said superstructure and adjacent at a right angle to said room.

Claim 11 (New): The caisson breakwater as set forth in claim 8, wherein said duct connecting said vertical duct and said room is formed by positioning a material filled caisson cell which extends for all the width of said room and extends in height from said roof downwards without reaching the base of said room between said vertical duct and said room.

Claim 12 (New): A caisson breakwater characterized in that at least one caisson (1) of said caisson breakwater comprises at least one cell adapted to be filled with material, a superstructure (10) positionable above said cell, a vertical

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duct (2), a room (3), a roof (8) located above said room, and at least one air duct (4) connecting said room (3) with the atmosphere; where: said vertical duct (2) is on the wave beaten side of said caisson (1); said vertical duct (2) extends substantially along the whole caisson (1); said vertical duct (2) is connected with the sea through an upper opening (6) beneath the sea level; said vertical duct (2) is connected with the room (3) through a lower opening (7); said room (3) extends substantially along the whole caisson (1); said room (3) is in part beneath the sea level and in part above the sea level; said air duct (4) comprises at least one turbine (5); where said vertical duct (2) is subdivided into sections (2', 2'', 2''', 2IV, 2V, 2VI) and said room (3) is subdivided into cells (3', 3'', 3''', 3IV, 3V, 3VI) by vertical walls (14', 14'', 14''', 14IV, 14V), with each of said cells (3', 3'', 3''', 3IV, 3V, 3VI) being connected with the atmosphere through tubes (16', 16'', 16''', 16IV, 16V, 16VI) which join to at least one air duct (4', 4'') being provided with said turbine (5', 5''), and where each of said tubes (16', 16'', 16''', 16IV, 16V, 16VI) are provided with valves (9', 9'', 9''', 9IV, 9V, 9VI).